

Amendment A  
Application No. 10/604,873  
Inventor: Robert R. Norris  
Attorney Docket No. 718395.41

### REMARKS

#### **Rejection under 35 U.S.C. Section 102(e):**

Claims 1 and 23 were rejected under 35 U.S.C. Section 102(e) as being anticipated by Asano (U.S. Patent No. 6,508,211). Claims 1 and 23 have been amended to recite that: "...a biasing mechanism that is in contact with the second member for returning the sealing mechanism to the second position when power is removed from the stepper motor." Support for this Amendment can be found in Paragraph [0021], Lines 6-14, which recites: "Conversely, there must be enough force in the biasing mechanism, e.g., return spring, 4 to turn the screw 12 to move the needle 6 that rotates the stepper motor 16 when power is removed from the stepper motor 16 to open the valve 2. The construction and design of the biasing mechanism, e.g., return spring, 4 can vary greatly to comport with the wide variety of stepper motors utilized to create to balance the force. Therefore, a feature of this invention is the ability for the valve 2 to go into a full open position as a failsafe when power is removed from the stepper motor 16." As such, it is respectfully believed that no new matter has been added.

In marked contrast, Asano in Column 15, Lines 44-65 recites:

The illustrated switching valve arrangement comprises a set of valve discs 518 that are translatable within a valve casing 520. In the illustrated arrangement, the valve discs 518 are formed on a piston that reciprocates within the casing 520. An actuator 522 drives the piston between two positions in the illustrated arrangement. Of course, the actuator could be designed to regulate flow by having a number of other positions. Preferably, the actuator 522 comprises a solenoid type actuator. Of course, the actuator can be a stepper motor, a screw drive or any other suitable actuator. In the illustrated arrangement, a set of apertures 524 are formed in the casing that lead to a chamber 526 in which the piston reciprocates. The apertures 524 can be selectively opened or closed by the valve discs 518 and the piston. In particular, when the piston is in a first

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position, the aperture 524 that is connected to the bypass passage is substantially closed (see FIG. 8) and when the piston is in a second position, the aperture 524 that communicates with a passage 528 that is connected to the heat exchanger 514 is substantially closed (see FIG. 9). In this manner, the coolant either flows through the heat exchanger 514 or flows through the bypass passage 516 into the chamber 526.

Therefore, in Asano, not only is the first member and the second member wholly absent with only a piston with valve discs formed thereon to regulate the flow of fluid into passages but there is not the slightest hint or suggestion regarding the presence of a biasing mechanism that is in contact with the second member for returning the sealing mechanism to the second position when power is removed from the stepper motor. This is a unique feature that provides a significant advantage that does not appear in Asano or other references recently provided from the International Search Reports.

It is now a basic tenet of patent law that the results and advantages produced by the claimed subject matter, of which the prior art is devoid, cannot be ignored simply because the claim limitations are similar to the otherwise barren prior art. It is respectfully believed that patentability of the claimed subject matter must be determined in view of the invention "as a whole." Moreover, for a valid 35 U.S.C. Section 102(e) rejection, it is respectfully believed that a single reference must teach each and every element of the rejected claim. In this case, having a **biasing mechanism that is in contact with the second member for returning the sealing mechanism to the second position when power is removed from the stepper motor is a**

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completely missing element that provides significant advantages over the switching valve arrangement as disclosed in Asano and other known references.

Moreover, a proper application of a reference against a device described and claimed in a patent application requires broadly that the anticipatory device be substantially the same as the anticipated device in structure function and result. **In this case, and at the very least, the switching valve disclosed in Asano et al. is different since the removal of power does not automatically place the switching valve in a full open position. This feature provides a significant advantage for the Applicant's Invention since the valve has the ability to go into a full open position as a failsafe when power is removed from the stepper motor.**

In addition, it is now a basic tenet of patent law that the United States Patent Office is not permitted to ignore the results and advantages of the claimed subject matter, of which the prior art is devoid, simply because the claim limitations are similar to the otherwise barren prior art.

In addition, hindsight is not the test of anticipation nor is it alone sufficient that other disclosed devices might have been adapted without too much difficulty to produce the object and function of Applicant's Invention, as claimed. There is no motivation to modify Asano by someone with ordinary skill in the art since Asano is only concerned with switching valve with moving valve discs.

Therefore, Claims 1 and 23 overcome the rejection under 35 U.S.C. Section 102(e) as being anticipated by Asano.

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Claims 7, 9, 14, 15, 24, 25, 28 and 29 were also rejected under 35 U.S.C. Section 102(e) as being anticipated over Asano. Claim 24 is hereby cancelled and it is respectfully believed this rejection with respect to this Claim is rendered moot. Since Claims 7, 9, 14, 15, 25, 28 and 29 depend from and contain all of the limitations of Claims 1 and 23, as amended, Claims 7, 9, 14, 15, 25, 28 and 29 are felt to distinguish from Asano in the same manner as Claims 1 and 23.

Therefore, Claims 1, 7, 9, 14, 15, 23, 25, 28 and 29 overcome the rejection under 35 U.S.C. Section 102(e) as being anticipated by Asano.

**Rejection under 35 U.S.C. Sections 103(a):**

Claims 2, 5, 6, 8, 13 and 18 were rejected under 35 U.S.C. Section 103(a) over Asano (U.S. Patent No. 6,508,211). Since Claims 2, 5, 6 and 13 depend from and contain all of the limitations of Claim 1, as amended, Claims 2, 5, 6 and 13 are felt to distinguish from Asano in the same manner as Claim 1.

Moreover, it is respectfully believed that that it is improper to apply an "obviousness to try" standard or indulge in hindsight evaluation or reconstruction. See Ecolchem, Inc. v. Southern California Edison Co., 56 U.S.P.Q.2d 1065 (Fed. Cir. 2000). In this case, it is acknowledged by the Examiner that the actuator as well as the shape of the metering orifice is not disclosed. What is obvious is that which can only be deduced by a logical step-by-step reasoning process from the premises furnished by the prior art. There is no logical step-by-step reasoning process that can be developed from the premises furnished by the prior art and a

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showing of a suggestion, teaching or motivation to combine the prior art references is an essential component of an obviousness holding. C. R. Bard, Inc. v. M3 Systems, Inc., 48 U.S.P.Q.2d 1225, 1232 (Fed. Cir. 1998).

In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification. In re Linter, 458 F.2d 1013, 1016, 173 U.S.P.Q. 560, 562 (C.C.P.A. 1972). In this case, there is nothing that would motivate an individual with ordinary skill in the art to include a biasing mechanism that is in contact with the second member for returning the sealing mechanism to the second position when power is removed from the stepper motor

Under In re Sang Su Lee, 277 F.3d 1338 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002), the Federal Circuit Court found that the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion rather than an opinion that an undisclosed element is obvious. In this case, it is respectfully believed that there is no support to state that a missing claim element, i.e., the actuator or shape of metering orifice, is obvious to someone with ordinary skill in the art much less the biasing mechanism that is in contact with the second member for returning the sealing mechanism to the second position when power is removed from the stepper motor.

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The Court of Appeals for the Federal Circuit Court as well as the United States Patent Office has long held that when evaluating a claim for determining obviousness, that all limitations must be evaluated. Someone with ordinary skill in the art would not look to Asano to create the feature of a biasing mechanism that is in contact with the second member for returning the sealing mechanism to the second position when power is removed from the stepper motor.

The Court of Appeals for the Federal Circuit Court has consistently highlighted the importance of considering the subject matter "as a whole" to take into account all limitations of the claims. Carl Schenck, A.G. v. Nortron Corp., 713 F2d. 782, 218 U.S.P.Q. 698 (Fed. Cir. 1983).

Therefore, Claims 2, 5, 6, 8, 13 and 18 overcome the rejection under 35 U.S.C. Section 103(a) as being unpatentable over Asano.

Claims 16, 17 and 30 were rejected under 35 U.S.C. Section 103(a) over Asano (U.S. Patent No. 6,508,211) in view of Saur (U.S. Patent No. 4,550,693).

Saur recites in Column 4, Lines 46-48, the following: "Valve disk 21 is loaded by a pressure spring 23 and is biased into its closed position with respect to connecting sleeve 9." Therefore, the biasing mechanism performs the exact opposite function to close the valve rather than open the valve as recited in the Applicant's Invention.

The Federal Circuit Court requires that there must be some reason or suggestion for combining the prior art references. It is improper to apply an "obviousness to try" standard or indulge in hindsight evaluation or reconstruction to attempt to arrive at the Applicant's Invention



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as claimed. See Ecolchem, Inc. v. Southern California Edison Co., 56 U.S.P.Q.2d 1065 (Fed. Cir. 2000). In this case, Saur specifically requires that the biasing mechanism operate to close the valve. There is no motivation whatsoever to use a biasing mechanism to open a valve much less the slightest hint or suggestion to do so. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992).

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." See Id., 916 F.2d at 682, 16 U.S.P.Q.2d at 1432. See also In re Fritch, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992).

The Supreme Court held in U.S. v. Adams, 383 U.S. 39, 148 U.S.P.Q. 479 (1966), that one important indicium of nonobviousness is "teaching away" from the claimed invention by the prior art or by experts in the art at (and/or after) the time the invention was made. It is improper to combine references wherein the references teach away from their combination. In re Grasselli, 713 F.2d 731, 218 U.S.P.Q. 769 (Fed. Cir. 1983). In this case, Saur mandates the use

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of a biasing mechanism to close the valve which is the exact opposite of the Applicant's  
Invention, as claimed, to open the valve.

Moreover, not only are the claim limitations unique when contrasted to Saur and Asano, but the Applicants' Invention, as claimed, solves a significant problem of providing a full open position to a valve when de-energized. It is respectfully believed ever since Eibel Process Co. v. Minnesota and Ontario Paper Co., 261 U.S. 45 (1923), that the U.S. Supreme Court, the Federal Court of Appeals for the Federal Circuit, the Court of Customs and Patent Appeals as well as the United States Patent Office has recognized the longstanding rule that discovery of the source of the problem is patentable even if the solution is deemed obvious (which is not the present situation). In this case, the pitch of a paper-making mesh conveyor was altered to impart a component of gravity to the paper stock. Although it was known that altering the pitch of the paper-making mesh conveyor would alter the performance of the machine, it was deemed patentable to discover that the source of the problem, i.e., ripples in the paper stock, could be eliminated by altering the pitch of the paper-making mesh conveyor. Also, see In re Kaslow, 707 F.2d 1366, 217 U.S.P.Q. 1089 (Fed. Cir. 1983) and In re Sponnoble, 405 F.2d 578, 160 U.S.P.Q. 237 (C.C. P.A. 1969).

Claim 30 specifically recites a "metering orifice." Therefore, it is respectfully believed to be axiomatic that a feature, i.e., a metering orifice, which is not disclosed in either Asano or Saur cannot come into being by their combination.



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In this situation, there is not the slightest hint or suggestion in either Asano or Saur to motivate an individual with ordinary skill in the art to modify these References to include a metering orifice.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Although a prior art device may be capable of being modified as claimed, there must be a suggestion or motivation in the reference to do so. See Id., 916 F.2d at 682, 16 U.S.P.Q.2d at 1432. See also In re Fritch, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992).

Moreover, a statement that modifications of the prior art to meet the claimed invention would have been within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art, is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). In this case, there is no objective reason to provide a metering orifice based on the cited prior art.

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The Court of Appeals for the Federal Circuit Court as well as the United States Patent Office has long held that when evaluating a claim for determining obviousness, that all limitations must be evaluated. Someone with ordinary skill in the art would not look to Asano or Saur to create the feature of a metering orifice. The Court of Appeals for the Federal Circuit Court has consistently highlighted the importance of considering the subject matter "as a whole" to take into account all limitations of the claims. Carl Schenck, A.G. v. Nortron Corp., 713 F2d. 782, 218 U.S.P.Q. 698 (Fed. Cir. 1983).

Therefore, Claims 16, 17 and 30 overcome the rejection under 35 U.S.C. Section 103(a) as being unpatentable over Asano in view of Saur.

Claims 3, 4, 10-12, 19-22, 26, 27, and 31-34 were also rejected under 35 U.S.C. Section 103(a) as being unpatentable over Asano in view of Saur. Claim 3 is hereby cancelled and it is respectfully believed this rejection with respect to this claim is rendered moot. Since Claims 4, 10-12 depend from and contain all of the limitations of Claim 1, as amended, Claims 4, 10-12 are felt to distinguish from Asano in the same manner as Claim 1, as previously recited. Since Claims 19-22 depend from and contain all of the limitations of Claim 17, as amended, Claims 19-22 are felt to distinguish from Asano in view of Saur in the same manner as Claim 17. Since Claims 26 and 27 depend from and contain all of the limitations of Claim 23, as amended, Claims 26 and 27 are felt to distinguish from Asano in the same manner as Claim 23. Since Claims 31-34 depend from and contain all of the limitations of Claim 30, as amended, Claims 31-34 are felt to distinguish from Asano in view of Saur in the same manner as Claim 17.

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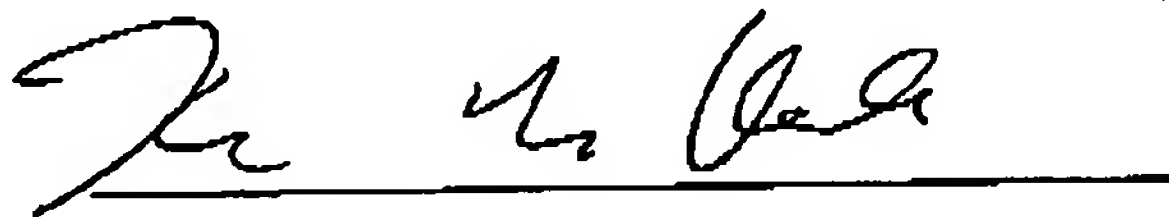
Therefore, Claims 4, 10-12, 16, 17, 19-22, 26, 27, 30 and 31-34 overcome the rejection under 35 U.S.C. Section 103(a) as being unpatentable over Asano in view of Saur.

Therefore, it is now believed that all of the pending Claims in the present application are in condition for allowance. Favorable action and allowance of the Claims is therefore respectfully requested. If any issue regarding the allowability of any of the pending Claims in the present application could be readily resolved, or if other action could be taken to further advance this application such as an Examiner's Amendment, or if the Examiner should have any questions regarding the present Amendment, it is respectfully requested that the Examiner please telephone Applicant's undersigned attorney in this regard.

Respectfully submitted,

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